



Docket No. 05058/75601

AF/2700

THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re:

U.S. Application of:

Eiichi YOSHIDA

For:

CONTROL DEVICE AND CONTROL METHOD
FOR NETWORK-CONNECTED DEVICE

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REPLY BRIEF

This Reply Brief for Appellant is in response to the Examiner's Answer which was in response to the Appeal Brief for Appellant which was filed January 13, 2003. The Examiner's Answer was received by Appellant's representatives on March 31, 2003. Thus, this Reply Brief is timely filed as being within the two month window for reply under 37 CFR 1.193 (b)(1).

In response to the Examiner's statements, Appellant asserts:

(8) Grounds of Rejection.

Rejections based on 35 U.S.C. 112, First Paragraph

Claims 11-16 and 19-20 have been rejected under 35 U.S.C. 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

On page 3 of the Examiner's Answer, the Examiner states:

“For at least amended claim 11 with a new limitation “...such that the job management device can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.” and “for amended claim 16 with a new limitation “wherein when said input job has a specific mode, said control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job”. These above limitations of both claims recite a server selects an image forming apparatus based on jobs stored in a memory of the image forming apparatus having the specific mode of the input job.

Appellant asserts that the Examiner has **correctly** characterized the above stated limitations of claims 11 and 16.

However, the Examiner **incorrectly** states that page 18, lines 7-10 and 14-19 of the specification recite “a server 6 just select a printer based on stored jobs in hard disk 206 of the server, not a memory of the printer, and printer status”. Appellant strongly asserts that the Examiner's position is unfounded as the Examiner has misread, misinterpreted, and ultimately misapplied these passages to the indicated rejected claims.

Page 18, lines 1-19 of the specification relates to Figure 6, illustrating job registration server 6, which registers an (input) job from computers 1 and 2 in an appropriate printer. According to the discussion on page 18, with reference to Fig. 6:

CPU 202 controls job registration server 6 according to a program stored in ROM 201. RAM 203 stores parameters and other information needed when a program is run. Connection to network N is through network controller 204 as in the case of printers 3 through 5. Job data received from computers 1 and 2 over network N travels via hard disk controller 205 and is recorded on hard disk 206. Page description language used for printing is recorded on hard disk 206, and job registration server 6 examines this content and ascertains the type of sheet selection for which control commands are included.

Job registration server 6 also ascertains printer status and information regarding jobs registered in printers 3 through 5 connected to network N, and job registration server 6 handles processing to select an appropriate printer based on stored jobs and printer status.

That is, according to the first quoted paragraph above, job registration server 6 is controlled by CPU 202. Data related to the input job (e.g. control commands which include the sheet selection (specific mode) of the input job) are received from computers 1 and 2 through hard disk controller 205 and are stored on hard disk 206. Page description language used for printing is also recorded on hard disk 206. In order to ascertain the type of sheet selection (specific mode) of an input job (i.e., whether it requires a special paper or special feed tray or stopping of the printer) such that job registration server 6 can determine an appropriate printer for registering the input job, job registration server 6 examines the page description language stored on hard disk 206 and input job related **control data** (which includes sheet selection information) stored in hard disk 206 and ascertains the types of sheet selection (specific mode) requirements for the input job.

According to the second quoted paragraph above, job registration server 6 likewise also ascertains printer status and information regarding prior jobs registered in printers 3-5, but which have not yet been printed. As one of ordinary skill in the art reading these passages would understand, the printer information is ascertained from the individual

printers themselves, and not from hard disk 206. Nowhere in the above passages, and nowhere in the specification, does it indicate or suggest that printer status (or information regarding print jobs stored in the printers but which have not yet been printed) is stored on or ascertained from hard disk 206.

Thus, clearly, according to the specification, a server 6 selects a printer based on printer status ascertained from the printers, and **does not** just select a printer based on stored jobs in hard disk 206 of the server.

Thus, claims 11 and 16, and all claims depending therefrom, including 12-15 and 19-20 are enabled by the above cited passages. Accordingly, application of these passages to reject claims 11 and 16 and their related dependent claims, as not being enabled by the specification, is unfounded.

Claims 1 and 6-10 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over the combination of Hower (US Patent No. 5,467,434) and Shibusawa et al. (US Patent No. 6,088,120) and Maniwa et al. (US Patent No. 5,768,483).

Claim 1:

Hower:

Hower merely teaches a print server that selects a printer which has a property (specific mode) when a print job has the same property (specific mode). However, Hower **does not** disclose or suggest how a printer would be selected from a plurality of printers when two or more of the printers have a same property (specific mode). As acknowledged on page 4 of the Examiner's Answer, "Hower does not teach each of at least two of printers has a specific mode". Hower **does not** disclose or suggest "wherein when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode **and which stores a prior job having the specific mode of the input job at the time the selection is made**".

On page 4 of the Examiner's Answer, the Examiner incorrectly correlates a "job ticket 35 in fig. 2" of Hower with an input job having a specific mode as described by the present application. According to Col. 4, lines 1-7 of Hower, an electronic job ticket 35 "permits the user to program a printer job for transmission to the server 25. Job ticket 35 contains the programming parameters for the job such as quantity, plex, enlargement, reduction, stock, finishing, etc." thus, it is actually "control data" related to an input job and not an "input job" data itself. Therefore, there is no correspondence between an "input job" of the present application and a "job ticket" (control data) of Hower. Thus, claims 1 and 6-10 are not rendered obvious by Hower.

Shibusawa:

Shibusawa discloses or suggests a printer managing apparatus which pools a plurality of printers into groups based on printer characteristics including: PCL and PS as PDL capability; paper size capability; and finishing capabilities, such as stapling, collating, etc. When an input job request is submitted by the user, the user inputs print requirements such as paper size, and finishing requirements. These print requirements are compared with the printer characteristics of the pooled groups to determine which of the pooled printers is selected for printing. (See Figs. 6-9: col. 6, line 58-Col. 8, line 10 of Shibusawa).

The Examiner alleges on page 5 of the Examiner's Answer that "It would have been obvious to modify the printing system of Hower to have each of at least two of printers has a specific mode as taught by Shibusawa. The suggestion for modifying the system of Hower can be reasoned by one of ordinary skill in the art as set forth by Shibusawa because Shibusawa provides a server for selecting one of printers based on the attribute information from a user and controlling print job to the selected printer". In support of this allegation, the Examiner cites (col. 1, lines 43-45 of Shibusawa). However, Appellant strongly asserts that the Examiner has misinterpreted Shibusawa, and misapplied it in combination with Hower, to support the rejection of claims 1 and 6-10 under 35 U.S.C. §103(a).

Col. 1, lines 43-45 of Shibusawa merely teaches that a server selects a printer for executing a print job in accordance with a printer or print attribute. That is, the server of Shibusawa selects a printer based on a printer attribute, **not** based on whether the printer also stores a job having the specific mode of the input job. Thus, claim 1, which recites a device for selecting a network connected image forming apparatus, wherein “when an input job has a specific mode”, a controller selects an image forming apparatus “**which stores a prior job having the specific mode of the input job at the time the selection is made**”, and thereby claims 6-10 which depend therefrom are not rendered obvious by Shibusawa.

Even if motivation to combine Hower and Shibusawa were found, as was alleged by the Examiner, a combination of the two references **would not** provide the device of claim 1 of the present application. A combination of the two references would not provide a device for selecting a network connected image forming apparatus, wherein “when an input job has a specific mode”, a controller selects an image forming apparatus “**which stores a prior job having the specific mode of the input job at the time the selection is made**”.

Thus, claim 1, and therefore, claims 6-10 which depend therefrom, are not obvious with respect to Hower and Shibusawa, either singly or in combination.

Maniwa:

Maniwa discloses a server machine which time-sequentially queues for printing print jobs having print profiles, and which notifies the user of a print error. A print controller transfers the print jobs to an appropriate printer and makes the copier execute the print job.

The printer controller checks to see if a print profile was generated by the user for the input print job and whether or not the printer profile for the input print job is different from a print profile established for the same user (i.e., a standard printer profile set up condition that has been established by a user as a default print profile). Thus, print profiles of Maniwa are distinguishably different than print jobs of the present application. If the print profile is different than the standard printer profile conditions, the print profile for the input print job overrides the standard print profile. If no standard is provided or if no print

profile is provided by the user, then only the print data is sent for printing. (*See* Col. 18, line 4-Col. 19, line 10 of Maniwa).

The Examiner further alleges that claims 1 and 6-10 are obvious over a combination of Hower, in view of Shibusawa, and further in view of Maniwa. As acknowledged on page 5 of the Examiner's Answer, "neither Hower nor Shibusawa teach a printer stores its own information such as properties". Appellant strongly asserts that even if all references taught printers storing their own property information (e.g., printer profile information), and even if there could be found suggestion or motivation to combine the references, none of the references discloses or suggest a network connected image forming apparatus, wherein "when an input job has a specific mode", a controller selects an image forming apparatus **"which stores a prior job having the specific mode of the input job at the time the selection is made"** as is recited by claim 1, nor would a combination of the references provide a network connected image forming apparatus, wherein "when an input job has a specific mode", a controller selects an image forming apparatus **"which stores a prior job having the specific mode of the input job at the time the selection is made"** as is recited by claim 1. Thus, claim 1, and claims 6-10 which depend therefrom, are not rendered obvious by a combination of Hower, in view of Shibusawa, and further in view of Maniwa.

Claims 11, 15, 16, 19, and 20 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over the combination of Hower and Maniwa.

Claim 11 recites an image forming apparatus connected with a job management device through a network, said image forming apparatus comprising:

- a memory for storing jobs;
- discriminating means for discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory; and
- reporting means for reporting the status of the memory to the job management device such that the job management device can determine whether or not to route an input job having a specific mode to the image

forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.

That is, according to claim 11, the discriminating means discriminates whether any of the jobs stored in the memory of the printer awaiting printing has a specific mode, which determines a status of the printer memory, and the reporting means reports the status of the printer memory to the job management device which determines which printer to register the input job for execution **based on whether any of the jobs stored in the memory** (as defined by the status of the memory reported to the job management device) **has the specific mode of the input job**.

Appellant respectfully asserts that neither Hower nor Shibusawa discloses or suggests an image forming apparatus which determines a status of a memory based on whether any of the jobs stored for printing in the printer has a specific mode, and determines whether or not to route an input job to that image forming apparatus based on whether any of the jobs stored in the memory of the image forming apparatus has the specific mode of the input job. Further, a combination of the cited references would not provide an image forming apparatus which determines a status of a memory based on whether any of the jobs stored for printing in the printer has a specific mode, and then determines whether or not to route an input job to that image forming apparatus based on whether any of the jobs stored in the memory of the image forming apparatus has the specific mode of the input job. Thus, claim 11, and thereby claims 15 and 19, are not rendered obvious by any of the cited references, either singly or in combination.

Claim 16 recites a network system comprising:

- a network for transmitting data;
- a plurality of image forming apparatuses connected with said network and each of the plurality of image forming apparatuses having a memory for storing jobs;
- discriminating means for **discriminating a status of the memory based on whether the memory stores a job having a specific mode**;

reporting means for **reporting to the network the status of the memory of any of the plurality of image forming apparatuses whose memory stores a job having a specific mode;** and

a control device for selecting one of said plurality of image forming apparatuses connected with the network and for registering an input job in the selected image forming apparatus,

wherein **when said input job has a specific mode, said control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job.**

That is, according to claim 16, a discriminating means discriminates whether any of the jobs stored awaiting printing in the memory of any of the plurality of network connected image forming apparatuses has a specific mode, which determines a status of the image forming apparatus memory, and the reporting means reports to the network the status of the image forming apparatus memory of any image forming apparatus whose memory stores a job having the specific mode of the input job. Ultimately, the control device determines **whether any of the image forming apparatus memories stores a job having the specific mode of the input job.**

Appellant respectfully asserts that neither Hower nor Shibusawa discloses or suggest a network system as claimed in claim 16. Further, a combination of the cited references would not provide a network system as claimed in claim 16. Thus, claim 16, and thereby claim 20, are not rendered obvious by any of the cited references, either singly or in combination.

(9) Appellant's Response to Examiner's Response to Appellant's Argument

The Examiner alleges that Appellants arguments in support of enablement under 35 U.S.C. 112 are unpersuasive.

In response to the reasoning proffered by the Examiner, Appellant respectfully calls to the attention of the Examiner and the Board:

1) the limitation of “discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory” is supported in the specification on page 18, line 20 through page 21, line 25, with reference to Figs. 6, 7, and 8. Thus, this limitation is enabled in the specification; and

2) the limitation of “reporting the status of the memory to the job management device (6) such that the job management device (6) can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job” is supported by in the specification on pages 18, line 20 through page 21, line 25, with reference to Figs. 6, 7, and 8. Thus, this limitation is enabled in the specification.

With regard to the remainder of the Examiner’s allegations in 2) of this argument, Appellant respectfully asserts that if the Examiner were to read the specification and view the figures in light of the specification, the Examiner would certainly have known that the limitations of 1) and 2) were clearly supported by the specification.

The Examiner alleges that Appellants arguments in support of non-obviousness under 35 U.S.C. 103 are unpersuasive.

In response to the reasoning proffered by the Examiner, Appellant respectfully calls to the attention of the Examiner and the Board that which has been discussed previously.

1) With respect to Hower:

a) a job ticket of Hower is not an input job of the present application. The job ticket of Hower does not have a specific mode, but is merely print control data, which indicates print parameters such as whether the input job is a specific mode job. (*See* Hower at Col. 4, lines 2-7). Thus, the job ticket would clearly **not** be either a prior print job or an input print job, as was alleged by the Examiner. Thus, none of the claims are rendered obvious by Hower either singly or in combination with the other cited references.

b) Further, printer properties of jobs to be printed would not be considered by one skilled in the art to be prior print jobs as is alleged by the Examiner. Thus, none of the claims are rendered obvious by Hower either singly or in combination with the other cited references.

2) As discussed previously, none of the cited references, either alone or in combination with Hower, would modify the deficiencies of Hower. Thus, in light of the above, Appellants reiterate their arguments in support of allowability of the claims over the cited references, either singly or in any combination.

CONCLUSION

For the above stated reasons, as well as for the reasons provided in the Appellant's Brief, Appellant respectfully asserts that claims 1-16 and 18-20 are described in the specification and Figures in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In view of the foregoing, a *prima facie* case of obviousness has not been established for any one of claims 1-16, and 18-20. Accordingly, the Appellant respectfully requests the Board of Patent Appeals and Interferences reverse the Examiner's rejections of all of the appealed claims to facilitate the subsequent allowance of this Application.

Respectfully submitted,

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APPENDIX A
(37 C.F.R. § 1.192(C)(9))

1. A device for selecting a network-connected image forming apparatus from a plurality of network-connected image forming apparatuses, where each of at least two of the plurality of image forming apparatuses has a specific mode, the device comprising:

a controller for selecting one of the plurality of image forming apparatuses connected with the network,

wherein when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, and

said controller for registering the input job in the selected image forming apparatus.

2. A device according to claim 1, wherein said selected image forming apparatus is adapted to form images of a job having the specific mode which requires temporarily stopping the selected image forming apparatus.

3. A device according to claim 2, wherein said selected image forming apparatus has a manual paper feeding specific mode.

4. A device according to claim 2, wherein said selected image forming apparatus is adapted to form an image of a job possessing the specific mode requiring changing paper positioned in the selected image forming apparatus.

5. A device according to claim 2, further comprising:
notice means for notifying a user to place an indicated type of paper in the selected image forming apparatus.

6. A device according to claim 1, wherein said controller selects one of the plurality of image forming apparatuses not storing a job of the specific mode when the input job does not have the specific mode.

7. A device according to claim 1,
wherein each of said plurality of image forming apparatuses has a memory for storing jobs, and
wherein said controller selects an image forming apparatus not storing a job in the memory of the selected image forming apparatus when an image forming apparatus storing a job of the specific mode cannot be referenced.

8. A device according to claim 7, wherein said controller selects an image forming apparatus having a greater remaining memory than any other of the plurality of image forming apparatuses when an image forming apparatus not having a job stored in memory cannot be referenced.

9. A device according to claim 1,
wherein when said input job has the specific mode where the specific mode indicates a requirement for a specific size paper, said controller receives information from the plurality of image forming apparatuses regarding a size of paper in each of the image forming apparatuses, and
wherein, when no image forming apparatus contains the specific size paper, said controller selects as a selected image forming apparatus an image forming apparatus storing a job having a different specific mode and said controller registers said input job in the selected image forming apparatus.

10. A device according to claim 9, further comprising:
notice means for notifying a user to place an indicated type of paper in the selected image forming apparatus.

11. An image forming apparatus connected with a job management device through a network, said image forming apparatus comprising:
a memory for storing jobs;
discriminating means for discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory; and

reporting means for reporting the status of the memory to the job management device such that the job management device can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.

12. An image forming apparatus according to claim 11, wherein said memory stores a job having the specific mode requiring temporary stoppage of the image forming apparatus.

13. An image forming apparatus according to claim 12, wherein said memory stores a job having the specific mode requiring a selected image forming apparatus having a manual paper feeding mode.

14. An image forming apparatus according to claim 12, wherein said memory stores a job having the specific mode requiring changing paper positioned in the selected image forming apparatus.

15. An image forming apparatus according to claim 12, further comprising:
image forming means for forming images on recording medium in order of the sequence of jobs stored in said memory.

16. A network system comprising:
a network for transmitting data;
a plurality of image forming apparatuses connected with said network and each of the plurality of image forming apparatuses having a memory for storing jobs;
discriminating means for discriminating a status of the memory based on whether the memory stores a job having a specific mode;
reporting means for reporting to the network the status of the memory of any of the plurality of image forming apparatuses whose memory stores a job having a specific mode;
and

a control device for selecting one of said plurality of image forming apparatuses connected with the network and for registering an input job in the selected image forming apparatus,

wherein when said input job has a specific mode, said control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job.

18. A device according to claim 1, wherein the specific mode of the prior job stored in the image forming apparatus is a manual paper feeding mode.

19. An image forming apparatus according to claim 11, wherein the specific mode of the prior job stored in the image forming apparatus is a manual paper feeding mode.

20. A network system according to claim 16, wherein the specific mode of the prior job stored in the image forming apparatus is a manual paper feeding mode.